

# Work Order ID 55897

February 4, 2010 8:48:11 AM



Page 1

Item ID:	D4027-043	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Hose Clamp Assembly					
Start Date:	2/04/10	Start Qty:	2.00	Cust Item ID:		
Required Date:	2/11/10	Req'd Qty:	2.00	Customer:		
Reference:						

Approvals:	Process Plan:	<u>M</u>	Date:	<u>10-2-09</u>	Tooling:		Date:		Run	Start	
	QC:		Date:		SPC (Y/N):		Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4027	A-PRELIM								

100		0.00							
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg								
	3M 1357 contact adhesive								
	batch: <u>M1105623</u>								
110	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location: <u>451</u>	0.00							
Packaging	Memo	0.00							
Packaging									

PRELIMINARY ISSUE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 55897**

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Page 2

Item ID: D4027-043

Accept



Setup Start



Revision ID:

Stop



Item Name: Hose Clamp Assembly

Start Date: 2/04/10 Start Qty: 2.00



Cust Item ID:

Required Date: 2/11/10 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/08/31

CZ 10/8/31

POSITIVE RECAL

EFFECTIVE

10/08/31

AUT

RELEASED

DATE 10/08/31

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

February 4, 2010 8:48:15 AM

Page 1

Work Order ID: 55897

Parent Item: D4027-043

Parent Item Name: Hose Clamp Assembly


Comments: IPP rev A 10.02.01 new issue Prelim EC verified by:JLM

Start Date: 2/04/10

Required Date: 2/11/10

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN743-13  BRACKET		Purchased	No				Each	20.0000	2.0000			

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST329

113706

20

20

Each

0.0000

2.0000



B55896

SB 10/04/14 (2)

D4027-3

Manufactured

No



Hose Clamp

D4027-5

Manufactured

No



10.08.36

Each

0.0000

2.0000



B55888

SB 10/04/14 (2)

Rubber Cushion

MS21042L06

Purchased

No



Each

190.0000

2.0000



B55879

SB 10/04/14 (2)  
M.H 10/08/30 (2X)

Nut

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

190

109167

2

110123

9

110731

14

111548

1

112433

64

112465

100

SB 10/04/14 (2)

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Page 2

February 4, 2010 8:48:15 AM

Work Order ID: 55897



Parent Item: D4027-043



Parent Item Name: Hose Clamp Assembly

Start Date: 2/04/10

Required Date: 2/11/10

Comments: IPP rev A 10.02.01 new issue Prelim EC verified by:JLM

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS24693-S28 		Purchased	No				Each	173.0000	2.0000			
Screw												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	173	
11334	96	
4824	29	
8170	48	

SS 10/04/14 ②

2

NAS1149DN632J 	Purchased	No					Each	90.0000	2.0000			
Washer												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	90	
112794	90	

SS 10/04/14 ②

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

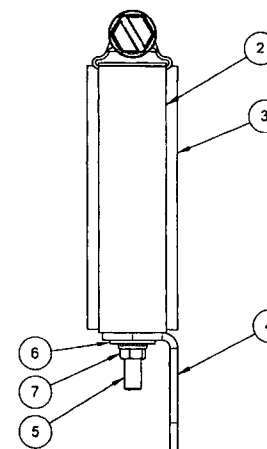
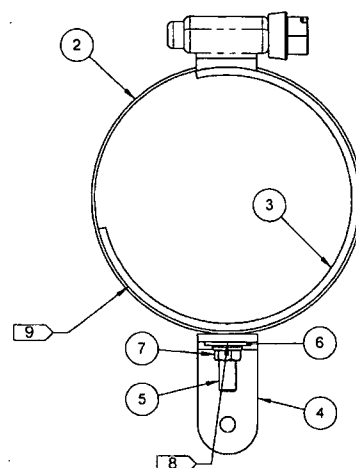
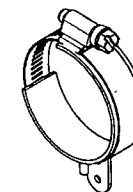
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



ITEM NO.	QTY. -043	PART NUMBER	DESCRIPTION	JOHN CAMERON AVIATION PART NUMBER
1	X	D4027-043	VENT CLAMP ASSEMBLY	JCA-M47-2-35
2	1	D4027-3	HOSE CLAMP	
3	1	D4027-7	RUBBER CUSHION	
4	1	D4027-9	BRACKET, SUPPORT CLAMP	
5	1	MS24693S28	SCREW	
6	1	NAS1149DN632J	WASHER	
7	1	MS21042L09	NUT	



**D4027-043 VENT CLAMP ASSEMBLY**

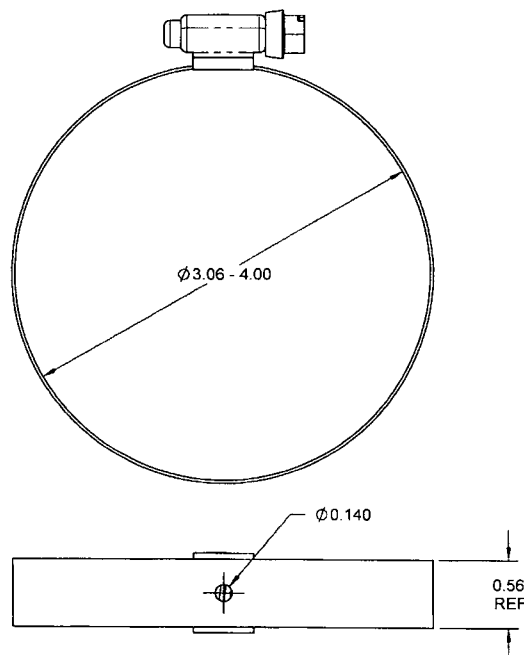
**RELEASED**  
2010-05-05  
N/A

**NOTES:**

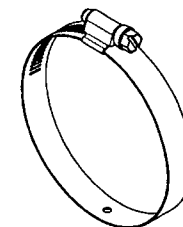
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4027-043" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.06 lbs
- 8) ATTACH D4027-9 BRACKET USING MS24693S28 SCREW, MS21042L06 NUT AND NAS1149DN632F WASHER
- 9) GLUE D4027-7 RUBBER CUSHION TO D4027-3 CLAMP USING 3M CONTACT CEMENT IN POSITION AS SHOWN

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4027	SHEET 2 OF 7
APPROVED		TITLE	SCALE
DE APPR.		CLAMP	NTS
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4027-1	REF JCA-M47-2-20



**D4027-1 HOSE CLAMP**

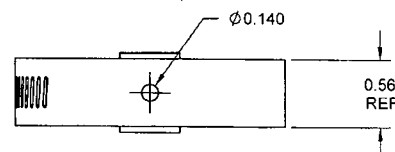
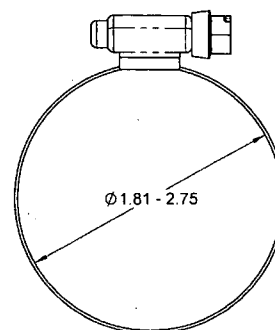


- NOTES:**
- 1) MATERIAL: MADE FROM QS200M56S
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4027-1" AND B/N USING FINE POINT PERMANENT INK MARKER
  - 7) WEIGHT: 0.05 lbs
  - 8) DRILL Ø 0.140 HOLE AS SHOWN OPPOSITE WORM DRIVE SCREW, DIMPLE HOLE FROM INSIDE FOR MS24693S28 SCREW

**RELEASED**  
2010-05-15

DESIGN		<b>DART AEROSPACE LTD</b>	
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MFG. APPR.		TITLE <b>CLAMP</b>	SHEET 3 OF 7
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4027-3	REF JCA-M47-2-35



**D4027-3 HOSE CLAMP**

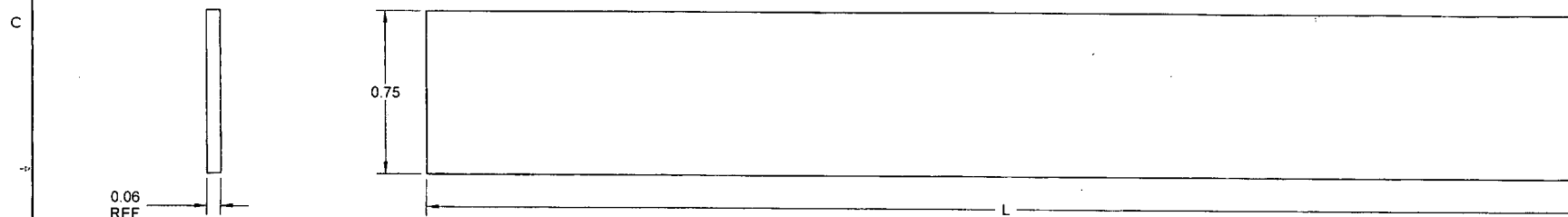
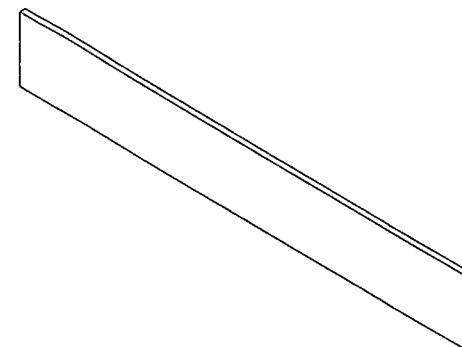
**RELEASED**  
2010-05-05  
*MD*

**NOTES:**

- 1) MATERIAL: MADE FROM QS200M36S
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4027-3" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.05 lbs
- 8) DRILL Ø0.140 HOLE AS SHOWN OPPOSITE WORM DRIVE SCREW, DIMPLE HOLE FROM INSIDE FOR MS24693S28 SCREW

DESIGN		<b>DART AEROSPACE LTD</b>	
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MFG. APPR.		D4027	SHEET 4 OF 7
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4027-5	REF JCA-M47-2-20
D4027-7	REF JCA-M47-2-35



DART PART NUMBER	LENGTH "L"
D4027-5	5.30
D4027-7	8.25

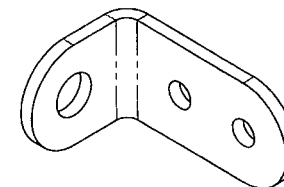
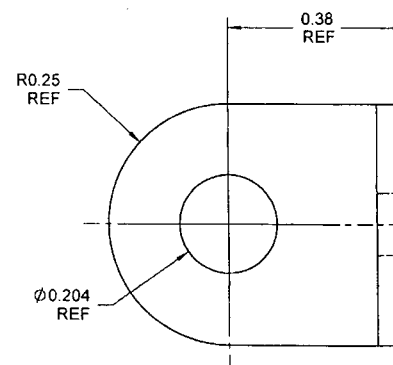
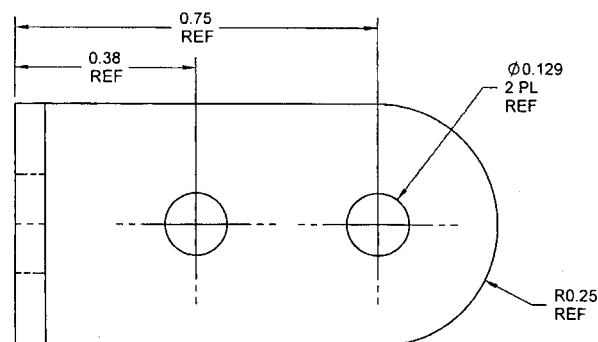
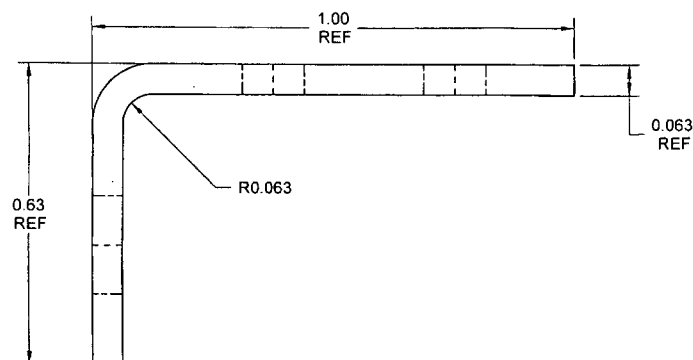
# **D4027-X RUBBER CUSHION**

**RELEASED**  
2010-05-05  
MD

- NOTES:**
- 1) MATERIAL: BLACK SOLID RUBBER NEOPRENE SHEET, 0.063 THICK  
REF DART SPEC M-NEO-60-S.063
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.01 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		<b>D4027</b>	SHEET 5 OF 7
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4027-9	REF JCA-M47-2-20/-35



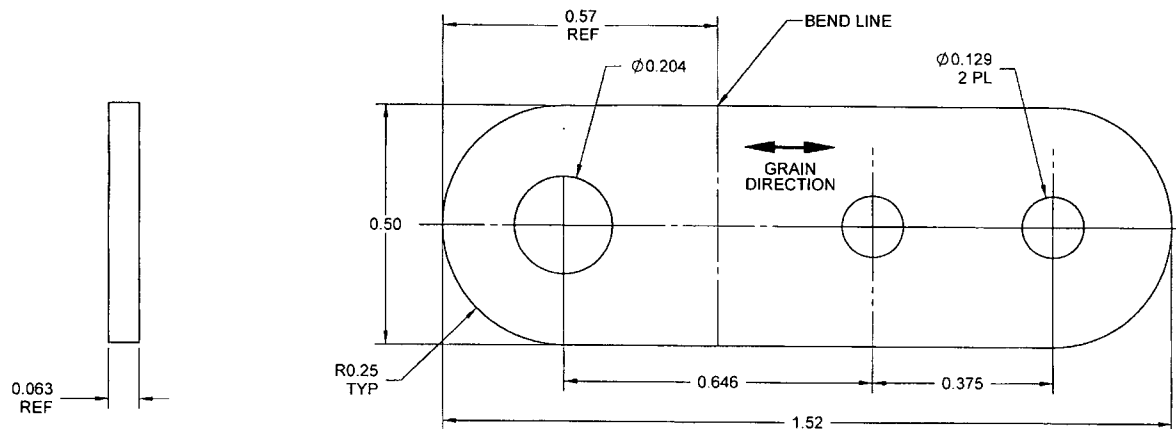
**D4027-9 BRACKET, SUPPORT ANGLE**

**RELEASED**  
2010-05-05  
*WPS*

**NOTES:**

- 1) MATERIAL: MADE FROM D4027-9F OR EQUIVALENT TO AN743-C13
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.00 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. <b>D4027</b>	REV. A
MFG. APPR.			SHEET 6 OF 7
APPROVED		TITLE <b>CLAMP</b>	SCALE NTS
DE APPR.			
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**D4027-9F FLAT PATTERN**

**RELEASED**  
2010-05-05  
MD

- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 0.063 THICK  
PER AMS5513 (304) OR AMS 5524 (316)  
OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S16GA
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.00 lbs

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		<b>D4027</b>	SHEET 7 OF 7
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